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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,416	07/23/2003	Robert M. Taylor	SEVRO38SIWP-DIV	9170
37334	7590	04/05/2005	EXAMINER	
D'AMBROSIO & ASSOCIATES, P.L.L.C. 10260 WESTHEIMER SUITE 465 HOUSTON, TX 77042			SIEPKE, SAMUEL P	
			ART UNIT	PAPER NUMBER
			1743	

DATE MAILED: 04/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/625,416	Applicant(s) TAYLOR ET AL.	
	Examiner Samuel P. Siefke	Art Unit 1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims **1-7, 10** and **11** are rejected under 35 U.S.C. 102(b) as being anticipated by Patent Abstract of Japan vol. 1996, no. 12, 26 December 1996 (08211042).

08211042 discloses a method of measuring chlorine content in aqueous solution without lowering the pH of a solution to the acidic range, which comprise the steps of:

- modifying a solution comprising chlorine and water to contain a proton donating compound and measuring the concentration of chlorine in a solution (abstract);
- the modifying step comprising mixing the solution with a proton donating compound (abstract);
- the proton donating compound is a non-nutritive reagent (abstract);
- the solution is modified electrochemically and the chlorine is measured electrochemically (abstract)
- the proton donating compound is a bicarbonate, specifically sodium bicarbonate (abstract);
- the pH of the aqueous solution comprises chlorine and sodium bicarbonate where the pH is about 8.8 (abstract, about 8.8 in a the alkaline);

- the chlorine form is selected from free forms OCL- or HOCL- (abstract).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patent Abstract of Japan vol. 1996, no. 12, 26 December 1996 (08211042) in view of Girvan et al. (USPN 6,022,480).

08211042 discloses a method of measuring chlorine content in aqueous solution without lowering the pH of a solution to the acidic range, which comprise the steps of: modifying a solution comprising chlorine and water to contain a proton donating compound and measuring the concentration of chlorine in a solution, the modifying step comprising mixing the solution with a proton donating compound, and the proton donating compound is a bicarbonate or borate salt.

08211042 does not disclose any information regarding the use of sodium tetraborate decahydrate.

Girvan teaches a method for treating standing water system comprising: administering borate salts and calcium hypochlorite to more efficiently provide free chlorine to the system, and to stabilize the pH of the standing water. Sodium tetraborate decahydrate has long been known to be effective as an algaecide and a fungicide in standing water systems such as swimming pools, drinking water reservoirs, etc. Tetraborate improves the treatment of water systems in several ways: (col. 2, lines 1-16). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use sodium tetraborate decahydrate as the particular borate salt proton donating compound because it stabilizes the pH of the water and increases the available chlorine to the water (col. 3, lines 41-56; col. 4, lines 10-16; col. 7, lines 54-67; claim 3).

Response to Arguments

Applicant's arguments filed 1/19/05 have been fully considered but they are not persuasive. Applicant argues, "the Japan Patent Abstract specifically lowers the pH of the sample water in order to make the water acidic: "Sample water treated with chlorine is supplied to an overflow tank 13 through sample water supply pipelines 19,15 and a dilute sulfuric acid solution 35 is poured into the upper part of an acidity adjusting tank 5 through a diffuser 43 to make sample water acidic." This step used by the Japanese Patent Abstract is exactly what the applicant's method prevents: "... the invention

provides a method of measuring chlorine content in a solution without lowering the pH of the solution to the acid range by modifying a solution containing chlorine and water to contain a proton donating compound." The applicant does not read on through the abstract to see that the water sample is restored back to an alkaline pH where the chlorine measurement is taken. Specifically "This acidic sample water is supplied to an alkalinity adjusting tank 7 through a communication pip 9 while the pH thereof is confirmed by an electrode 11. A sodium bicarbonate solution 47 is poured into the tank 7 through a diffuser 55 to make the sample water alkaline. This alkaline sample water is sent to a residual chlorine concentration measuring means 63 through piping 57 while the pH thereof is confirmed by an electrode 59 and the concentration of the residual chlorine is measured by an electrode part 83." Therefore at the time the chlorine concentration is measure the water sample is in an alkaline state and therefore anticipates all the limitations of claim 1.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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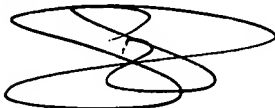
extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel P. Siefke whose telephone number is 571-272-1262. The examiner can normally be reached on M-F 7:00am-5:00pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on 571-272-1700. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sam P. Siefke



April 1, 2005


Jill Warden
Supervisory Patent Examiner
Technology Center 1701